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Parents' Education and their Adult Offspring's  
Other-Regarding Behavior\*

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# Parents' Education and their Adult Offspring's Other-Regarding Behavior\*

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## Abstract

Does socioeconomic background when measured by parental educational attainment explain the heterogeneity in adults' other-regarding preferences? I test this by using data from two online experiments - a Dictator Game and a Trust Game - that were conducted with a broad sample of the Danish adult population. I match the experimental data with high-quality data from the Danish population registers about my subjects and their parents. Whereas previous studies have found socioeconomic status, including parental educational attainment, to be predictive for children's generosity, I find no such evidence among adults. This result is robust across age groups and genders. I provide two explanations for this. First, sociodemographic characteristics in general appear to be poor predictors of adults' other-regarding behavior. Second, by using Danish survey data, I find that Danish parents' educational attainment appears to be uncorrelated with how important they find it to teach their children to "think of others". More speculative explanations are also provided.

**Keywords:** Dictator Game, Trust Game, Generosity, Other-Regarding Preferences, Parental Education, Socioeconomic Status

**JEL Classification Numbers:** C91, D63, D64

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# 1 Introduction

Empirical research has consistently documented that humans are vastly different in how generously they treat each other. In the experimental literature, for instance, hundreds of Dictator Game experiments have shown that a majority of people in that social context appear to be willing to voluntarily share a positive amount of money with a stranger.<sup>1</sup> However, little is known about how other-regarding preferences are shaped and where the heterogeneity in them originates from.

A few studies have investigated the intergenerational transmission of these preferences. Wilhelm et al. (2008) compared charitable giving in the United States of parents and their offspring and found a high degree of intergenerational dependency in giving to religious causes, but a less significant correlation in giving to other causes. This is in line with Bisin and Verdier (2000) who observed that smaller ethnic or religious minorities tend to invest more in transmitting their attitudes to future generations than larger minorities or majorities do, because the smaller minorities arguably worry more about the survival of these attitudes. Also, Okumura and Usui (forthcoming) used American survey data to find that children of sociable parents appear to be more sociable themselves. A natural question to ask is then whether such transmission of attitudes and behavior is caused by nature or nurture. In a Swedish twin-study, Cesarini et al. (2009) compared Dictator Game choices (as well as risky choices) made by each of two twins and found that choices made by monozygotic twins are more correlated than those made by same-gender dizygotic twins. They concluded that 20% of the variation in Dictator Game choices can be explained genetically, i.e. by nature. It has also been found that other types of preferences and behavior in social interactions such as political orientation and voting behavior are partly genetically inheritable (e.g. Alford et al., 2005; Fowler et al., 2008).

With 80% of the variation remaining unexplained by nature, however, there is an unearthed potential in identifying what facets of nurture matter for the development of other-regarding preferences. Three studies by Benenson et al. (2007), Chen et al. (2013),

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<sup>1</sup>In a meta-study of Dictator Game experiments, Engel (2011) used 20,813 observations from 328 treatments to find that about one third (36%) of subjects selfishly keep as much to themselves as possible, while 64% reveal a willingness to share a positive amount with another individual. Further, it has been documented that giving in the Dictator Game is positively correlated with generous behavior outside the lab (e.g. Benz and Meier, 2008; Franzen and Pointner, 2013).

and Bauer et al. (2014) all related children's choices in the Dictator Game to measures of their socioeconomic status (SES). Benenson et al. used British school children coming from six different schools which the authors categorized as either low- or high-SES schools based on the fraction of pupils in each school who received free lunches. Chen et al. used Chinese children and compared their choices in the Dictator Game with a survey measure of their family income. Bauer et al. instead conducted their experiment with Czech children who were categorized into SES individually by using survey information about the parents' educational attainments. Children of two less-educated parents were categorized as being of low SES. Whereas Benenson et al. and Bauer et al. found low-SES children to be less generous (and more spiteful) than high-SES children, Chen et al. found the opposite.<sup>2</sup>

In this paper, I build on these children studies and ask whether *adults'* other-regarding preferences are also related to their socioeconomic background which I measure by their parents' educational attainments. Since practically all economic decisions in the marketplace, in politics, and in other social interactions are made by adults, it is relevant to understand how adults make their decisions and the determinants of these.

I use data from two online experiments - a Dictator Game and a Trust Game - that were conducted with more than 1,500 subjects in each. The experiments were carried out at the Internet Laboratory for Experimental Economics (iLEE) at the University of Copenhagen in collaboration with Statistics Denmark who recruited the subjects from the broad Danish adult population. Statistics Denmark provide data that allows me to match choice data from the experiments with high-quality individual-level data from the Danish population registers. This means that I can match experimental choices with characteristics about the subjects and their parents, too.

I measure the subjects' socioeconomic backgrounds by their parents' educational attainments and adopt the definition of low socioeconomic status from Bauer et al. (2014) which means that I define low-SES subjects as those who were born to two low-educated parents, i.e. parents who had not graduated from high school. By using this definition, 19% of the Dictator Game subjects and 18% of the Trust Game subjects can be cate-

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<sup>2</sup>The conclusion in Chen et al. (2013) is similar to the conclusion drawn in Knight and Kagan (1977). However, the study by Knight and Kagan was based on a two-player simultaneous-move experiment, which resembled a Prisoner's Dilemma more than a Dictator Game.

gorized as low-SES subjects. There are multiple reasons why I use parental educational attainment as an indicator for SES. First, income which is another frequently applied measure of SES is highly correlated with educational attainment.<sup>3</sup> Also, educational attainment has the advantage of being more stable (i.e. non-decreasing in time and almost constant from one year to another) than income. Second, because the Danish population registers were not formalized until 1968 and because the registers from before 1980 are not available to researchers from, I have many more observations about my subjects' parents' highest level of education than for their incomes at the time when my subjects were children. Third, parental educational attainment is known to positively correlate with how much time they spend on (developing) child care (e.g. Guryan et al., 2008).<sup>4</sup>

I find highly robust evidence that adults' other-regarding behavior is unrelated to their parents' educational background. Since my subjects come from 39 different birth-year cohorts, I can check if this finding is robust across age groups. This appears to be the case. I also check if there are gender differences in the link between generosity and parental education, since Almås et al. (2012) have found this to be the case when relating adolescents' willingness to compete to their socioeconomic status. I do not find such gender differences, however.

I can think of many possible reasons why adults' other-regarding behavior should not be linked to their socioeconomic background. First of all, by relating my subjects' own sociodemographic characteristics such as their own educational attainment or income to their generosity, I generally find such characteristics to be poor predictors of generosity. This finding is in line with a recent study by Birkeland et al. (forthcoming) who used both Norwegian data and choice data from the exact same Dictator Game experiment as I do to find that criminal records are poor predictors of generosity, too. Second, I use Danish survey data to relate the respondents' educational attainments to how important they think it is to teach children to "think of others". I find no correlation, however. Bauer et al. (2014), who found a positive link between children's generosity and their parents' educational attainments, conducted a similar analysis and found that

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<sup>3</sup>For instance, among 40,000 representative Danish adults about whom I have access to register data, I find that an extra year of education significantly increases annual gross income by 17,000-25,000 DKK ( $\approx$  3,000-4,500 USD). See the Appendix, Table C.1.

<sup>4</sup>See also Bonke (2009), Bonke and Esping-Andersen (2011), and Rasmussen (2009) for Danish evidence on the link between parental educational attainment and the time they use with their children.

better-educated Czech parents appear to put more effort in teaching their children to be generous. This observation suggests that the relationship between other-regarding preferences and socioeconomic background might be country-specific, which could also explain why the findings in Chen et al. (2013) oppose those in Benenson et al. (2007) and Bauer et al. (2014).

There are also more speculative explanations. For instance, if a child’s endowment of other-regarding preferences is positively correlated with his or her maturity (e.g. Fehr et al., 2008; Almås et al., 2010; Fehr et al., 2013), say, and if maturity for a given age is positively related to the child’s SES (e.g. Boehm, 1962) then one could expect to see that the SES gap in other-regarding preferences is decreasing in age and maturity and possibly closes in late adolescence (also known as the “impressionable years”). At least, the SES gap in verbal and math achievements appears to diminish in age (see White, 1982 for a review). Another speculative explanation is that peer effects become increasingly important in age such as when the son or daughter leaves the parents’ household. Whereas Bauer et al. (2014) found peers to be unimportant for children’s other-regarding preferences, Dohmen et al. (2012) found peers to be very important for German adults’ endowment of risk preferences and trust attitudes, even when controlling for their parents’ preferences and attitudes, too.

With socioeconomic background - at least when measured by parental educational attainment - being unable to explain the heterogeneity in adults’ other-regarding preferences, there is a potential for future research to identify other channels through which nurture influences the formation of such preferences.

## 2 Recruitment

In 2007, Statistics Denmark created a random sample of the Danish adult population aged 18-80 years for the Internet Laboratory for Experimental Economics (iLEE) at the University of Copenhagen. The sample consisted of 40,000 individuals, of whom 22,027 were invited to participate in a first wave of online experiments (iLEE1) in 2008.<sup>5</sup> A total

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<sup>5</sup>See invitation letters in the Appendix, Section A. See also Thöni et al. (2012) for a full description of the recruitment procedure.

of 4,290 individuals responded by logging into the iLEE website and 2,291 completed the entire iLEE1.

In this paper, I use data from two experiments that were part of later waves of experiments. In these waves, only the 2,291 subjects who had completed iLEE1 were invited. One experiment - a Dictator Game - was part of the second wave of experiments (iLEE2) in 2009 and the other experiment - a Trust Game - was part of the third wave (iLEE3) in 2010.

Because the experiments were conducted online and because Statistics Denmark handled all correspondence with the subjects, both subject-subject and subject-experimenter anonymity have been maintained. This was carefully explained to the subjects, too. Statistics Denmark has ensured the subjects' anonymity by creating a unique and random ID number for each subject. Only Statistics Denmark have the key to this ID number. The ID number serves two purposes. I can use it to match data from one experiment with data from another and I can use it to match experimental data with data from the Danish population registers about my subjects. These contain high-quality individual-level data collected from governmental and private institutions (e.g. banks and employers). By using the registers, I am also able to match experimental data with my subjects' parents' characteristics.

Because the subjects participated remotely at the virtual lab, I cannot be sure that the invitees, about whom I have access to register data, were in fact those who participated in the experiment. It could be that an invited mother asked her teenage son, say, to participate instead. To avoid such confounds, I validate the subjects' identities by comparing their self-reported age and gender to the invitee's age and gender according to the registers.

## 3 Experimental Design and empirical approach

### 3.1 Study 1: Dictator Game

The Dictator Game experiment was the first experiment conducted in iLEE2.<sup>6</sup> It involves two persons: One of them (“Dictator”) must decide how to divide a money sum between him- or herself and another anonymous person (“Recipient”) who remains passive. All subjects were randomly paired twice such that they were both in the role of the Dictator and the Recipient. They were paired with a different subject in each role and there was no feedback during the experiment. In order to determine payments, the decision made in one pair was picked at random *ex post*. The instructions were written in simple language and they contained graphics to easily explain the experiment to the subjects. The Dictator’s task was to decide how much of 150 DKK ( $\approx 27$  USD) to share with the Recipient. He or she could share any fraction  $\tau \in \{0, 0.1, \dots, 1\}$  of the money sum. See the translated instructions in the Appendix, Section B.

A total of 2,291 subjects were invited for participation in iLEE2 and 1,567 of them made a decision in the Dictator Game. Of these, 1,544 could be validated based on their self-reported age and gender. Subjects were paid via electronic bank transfers if they completed the entire wave.

### 3.2 Study 2: Trust Game

The Trust Game was the first experiment conducted in iLEE3 a year later. The Trust Game is a sequential-move two-person game. In the present version of the game, one person (“First-Mover”) had to choose between IN and OUT. If the First-Mover chose IN, then he or she trusted the Second-Mover and the game proceeded to a second stage in which the other person (“Second-Mover”) had to choose whether or not to reciprocate this trust by choosing between LEFT and RIGHT. By choosing RIGHT, the Second-Mover generously reciprocated the First-Mover’s trust. If the Second-Mover chose LEFT, however, then the First-Mover was worse off as compared to not trusting the Second-Mover in the first place. Like the Dictator’s decision problem in the Dictator Game, the

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<sup>6</sup>The choice data from this experiment has also been used in Birkeland et al. (forthcoming).



Second-Mover’s decision problem in the Trust Game was non-strategic and was simply a question of making a generous or, alternatively, a selfish act.

There was no feedback in the experiment. Instead, the strategy method was used to elicit the Second-Mover’s choice.<sup>7</sup> With the strategy method, the two-stage game was collapsed into a simultaneous-move game with strategies and payoffs in DKK as shown below:

	LEFT	RIGHT
IN	20,90	80,40
OUT	50,20	50,20

The Nash equilibrium of the game is  $\{\text{OUT,LEFT}\}$ , i.e. the Second-Mover does not reciprocate the First-Mover’s trust in the second stage and with this knowledge the First-Mover will not trust the Second-Mover in the first stage. However, playing  $\{\text{IN,RIGHT}\}$  is a Pareto improvement, i.e. the First-Mover trusts the Second-Mover who reciprocates this trust. As in the Dictator Game, all subjects were in the role of both players. They were paired with a different subject in each role and the outcome from one pair was randomly picked to determine payments.

1,531 subjects made a Second-Mover choice in the Trust Game, of whom 1,494 could be validated. Subjects were paid via electronic bank transfers if they completed the entire iLEE3 wave.

### 3.3 Empirical approach

In order to test for a correlation between generosity and parental educational attainment, I regress the choices made in the two experiments on a dummy variable that takes value 1 if both the subjects’ parents were less-educated. I follow the strategy from Bauer et al. (2014) and define low-educated parents as those who had not completed high school, i.e. had less than 12 years of schooling. In order to check that my results are not particular to that definition, however, I employ other measures of parental educational attainment in the Appendix, Section C.2.

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<sup>7</sup>Most experiments have shown no difference in behavior between applying the strategy method or direct responses (see Brandts and Charness, 2011 for a review), but in a Trust Game experiment Casari and Cox (2009) found Second-Movers to be less reciprocating under the strategy method than under direct responses.

Since my results will rely heavily on the educational attainment data from the Danish population registers, I check for an intergenerational dependency in education, i.e. how parents' educational attainment relates to that of their children. By performing OLS regressions, I find that an extra year of paternal (maternal) schooling increases the offspring's educational attainment by 0.11 (0.09-0.14) years on average. See the Appendix, Table C.2. This is comparable to Swedish estimates (Björklund et al., 2004, 2006), but smaller than American estimates (see Holmlund et al., 2011 for a review).

Because the Danish population registers were not formalized until 1968, I am only able to match about two thirds (or 1,009) of the validated Dictator Game subjects with their mother and 978 with their father. A total of 969 subjects can be matched with both their parents. It is mainly the youngest subjects in my sample whom I can match with their parents. Further, I know both parents' educational attainments for 741 subjects. Similarly, 931 Second-Movers from the Trust Game can be matched with both their parents and I know both parents' educational attainments for 719 of these. In the remainder of this paper, I will focus solely on these 741 and 719 subjects, respectively.

It is important to note that my subjects come from 39 different birth-year cohorts and that they grew up in all parts of Denmark. This has several advantages, but it also means that I cannot check for peer effects in their other-regarding behavior. Furthermore, I cannot separate age effects from cohort effects because of the cross-sectional nature of my data.

### **3.4 Descriptive statistics**

In Table 1, I provide descriptive statistics of my study samples. 48% of the Dictator Game subjects were women, the average age was 37.1 years at the beginning of 2009, and the average educational attainment measured by the length of schooling was 13.6 years. 89% of the Dictator Game subjects were employed, 16% lived in a single-person household, and 31% resided in one of Denmark's four largest cities (Copenhagen, Aarhus, Odense, or Aalborg). These shares are similar for the Trust Game sample.

A total of 19% (18%) of the Dictator Game (Trust Game) subjects had two low-educated parents given my definition. The average father was 29.2 years old when the

typical subject in my sample was born and he had 12.4 years of schooling. In comparison, the average mother was 26.5 years old and had 11.6 years of schooling. I present distributions of the parents' educational attainments in the Appendix, Figure C.8.

Table 1: Description of the subjects and their parents

	Dictator Game		Trust Game	
	Mean	Std. dev.	Mean	Std. dev.
<i>Individual characteristics</i>				
Age <sup>a</sup>	37.1	10.4	38.1	10.4
Female	0.483	0.500	0.480	0.500
Years of education	13.6	2.16	13.8	2.20
Employed	0.888	0.316	0.822	0.383
Single-person household	0.159	0.366	0.143	0.351
Urban residence	0.306	0.461	0.317	0.466
<i>Parental characteristics</i>				
Low-educated parents	0.190	0.393	0.184	0.387
Father's age	29.2	5.22	29.2	5.24
Father's education	12.4	3.23	12.5	3.16
Mother's age	26.5	4.79	26.5	4.75
Mother's education	11.6	3.25	11.6	3.23

*Notes:* <sup>a</sup> Note that subjects' ages differ because the Trust Game was conducted one year after the Dictator Game.

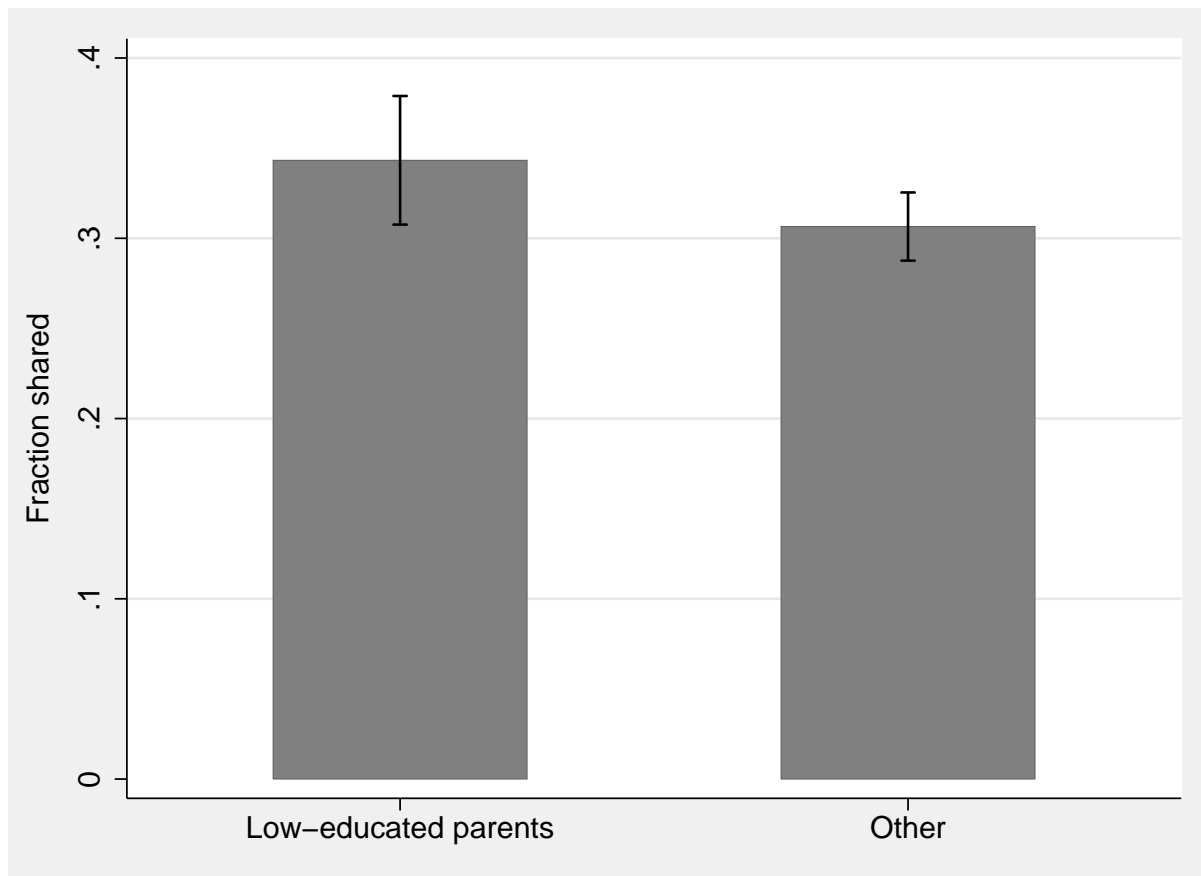
## 4 Results

### 4.1 Study 1: Dictator Game

In the Dictator Game, the average subject shared 31.3% (or 47 DKK) of the money sum with the Recipient. 30.6% of the subjects shared nothing and 46.3% split the money evenly with the other subject. In Figure 1, I compare the share given to the Recipient across parental educations. Those with low-educated parents shared 34.3% on average, whereas the others shared 30.7%. This effect is opposite the one found in Benenson et al. (2007) and Bauer et al. (2014), but in line with Chen et al. (2013). However, neither the

means ( $t$ -test,  $p = 0.091$ ) nor distributions of the fraction of the money sum shared with the Recipient (Mann-Whitney test,  $p = 0.088$ ) are significantly different at the 5%-level.

Figure 1: Comparison of Dictator Game sharing across parental educations



*Note:* Lines show the 95% confidence intervals.

In Table 2, I essentially show that this finding is robust in a regression analysis. Column 1 is a univariate regression comparing means across parental educational attainments. In column 2, I control for individual characteristics and find that the non-correlation between generosity and parental educational attainment is robust to these. In line with the literature, I observe that age is positively correlated with generosity (Engel, 2011). In my data, subjects increase the share given by 0.4 percentage points per year of age. However, I find no correlation between gender and generosity. I also control for each subject's current employment status and household characteristics since others have found these to be predictive of behavior in social dilemma experiments. For instance, Rand et al. (2012) documented that individuals who naturally rely on other people in

their daily life (e.g. on the job) are more cooperative than others. Also, Borgloh et al. (2010) found that unmarried individuals share more in Dictator Games and donate more to charities, too. Gächter and Herrmann (2011) found (young) people living in urban areas to be less cooperative than those living in rural areas. Whereas I find weak evidence that employed subjects are less generous than unemployed, I do not find any correlation between household characteristics and generosity. In column 3, I add controls for the parents' ages at the beginning of the subject's birth year. This allows me to control for the trend growth in educational attainment that has taken place over time, i.e. the fact that younger cohorts are better educated than older cohorts. Thus, when controlling for the subject's own age as well as the parents' ages when he or she was born, I implicitly control for the parents' current age. My result is robust to this control, too.

In the Appendix, Section C.2, I present robustness checks by employing other model specifications including other functional forms of parental education. My results are generally robust to these checks (see the Appendix, Tables C.6-C.8).

I then check if my finding is robust across age groups. I do this by defining "young" subjects as those who were 19-30 years old at the beginning of 2009 and "old" as those who were 31 years or older. By splitting up the regressions on young and old, I find no significant relationship between generosity and parental educational attainment for either age group. See Table 3. The effect of low parental education on generosity appears to be negative, but insignificant among the younger subjects and positive, but insignificant among the older subjects. I use the *seemingly unrelated regression* method (Zellner, 1962) to pairwise compare coefficients across age groups and conclude that these are not significantly different.<sup>8</sup> This is robust for both genders.

I also test if the correlation between generosity and parental educational attainment is gender-specific. There are several reasons why this might be the case. In a survey study, Okumura and Usui (forthcoming) found a stronger correlation in sociability between boys and their parents than between girls and parents. Others have found that fathers tend to involve themselves more in child care if they have a son than if they do not, which could plausibly affect boys' as compared to girls' development of (other-regarding) preferences

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<sup>8</sup>Column 1 vs. column 4:  $\chi^2 = 0.76, p = 0.384$ . Column 2 vs. column 5:  $\chi^2 = 1.18, p = 0.463$ . Column 3 vs. column 6:  $\chi^2 = 0.92, p = 0.338$ .

Table 2: Regressions of Dictator Game sharing on parental educational attainment

	(1)	(2)	(3)
Low-educated parents	0.037 (0.022)	0.010 (0.022)	0.005 (0.023)
Age		0.004*** (0.001)	0.004*** (0.001)
Gender		0.025 (0.017)	0.024 (0.017)
Employed		-0.054* (0.027)	-0.055* (0.027)
Single-person household		0.038 (0.024)	0.039 (0.024)
Urban residence		0.004 (0.019)	0.005 (0.019)
Father's age			0.002 (0.003)
Mother's age			-0.005 (0.003)
Constant	0.31*** (0.010)	0.18*** (0.040)	0.26*** (0.073)
$N$	741	741	741
$R^2$	0.004	0.041	0.046

*Notes:* OLS regressions with the fraction shared with the Recipient as the dependent variable. Standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

(e.g. Harris et al., 1998; Bonke and Esping-Andersen, 2011). A third line of research have found gender differences in preferences including other-regarding preferences (see Croson and Gneezy, 2009 for a review). In my data, however, I find generosity and parental education to be uncorrelated for both genders. See Table 4.

## 4.2 Study 2: Trust Game

One could speculate that my findings are specific to the particular Dictator Game experiment I study. To approach such concerns, I redo the analysis using Second-Mover choices from a Trust Game experiment conducted with an overlapping subject sample a

Table 3: Regressions of Dictator Game sharing on parental educational attainment, by age

	19-30 years			31+ years		
	(1)	(2)	(3)	(4)	(5)	(6)
Low-educated parents	-0.019 (0.064)	-0.030 (0.065)	-0.051 (0.065)	0.032 (0.023)	0.013 (0.023)	0.010 (0.024)
<i>Controls</i>						
Own characteristics	No	Yes	Yes	No	Yes	Yes
Parents' ages	No	No	Yes	No	No	Yes
<i>N</i>	223	223	223	518	518	518
<i>R</i> <sup>2</sup>	0.000	0.036	0.059	0.004	0.058	0.061

*Notes:* OLS regressions with the fraction shared with the Recipient as the dependent variable. Standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table 4: Regressions of Dictator Game sharing on parental educational attainment, by gender

	Men			Women		
	(1)	(2)	(3)	(4)	(5)	(6)
Low-educated parents	0.060 (0.032)	0.022 (0.033)	0.011 (0.034)	0.013 (0.029)	-0.002 (0.030)	-0.0001 (0.030)
<i>Controls</i>						
Own characteristics	No	Yes	Yes	No	Yes	Yes
Parents' ages	No	No	Yes	No	No	Yes
<i>N</i>	383	383	383	358	358	358
<i>R</i> <sup>2</sup>	0.009	0.067	0.074	0.001	0.020	0.027

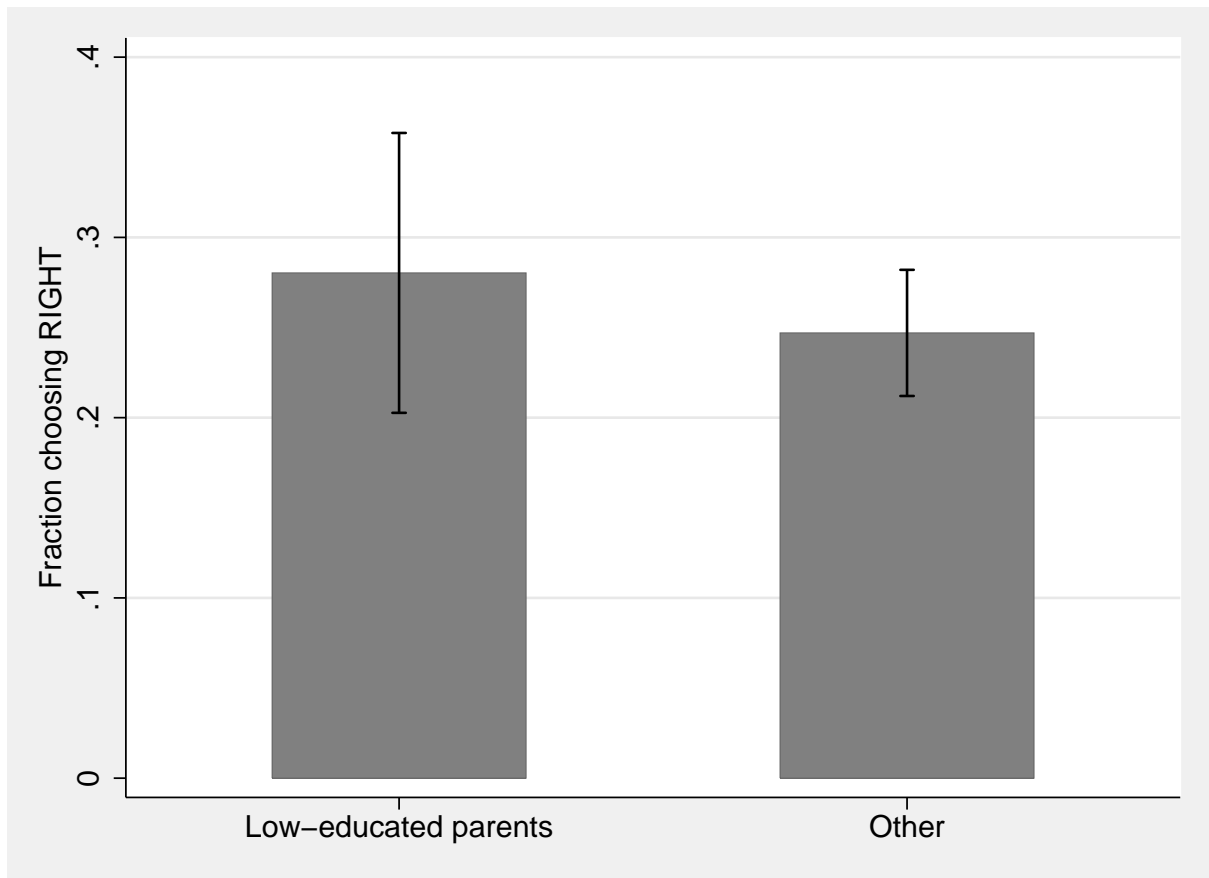
*Notes:* OLS regressions with the fraction shared with the Recipient as the dependent variable. Standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

year later. In the Trust Game, the subjects had only two options when they were in the role of the Second-Mover: Choose LEFT (i.e. be selfish) or RIGHT (i.e. be generous). 25.3% of the subjects generously chose RIGHT. In Figure 2, I compare the fraction of subjects who chose RIGHT across parental educational attainments. 28.0% of the subjects born to two low-educated parents chose RIGHT, while 24.7% of the others did so. This difference is not significant, however (Fisher's exact test,  $p = 0.439$ ).

In Table 5, I check the robustness of this finding in a series of logit regressions in

Figure 2: Generosity in the Trust Game across parental educations



*Note:* Lines show the 95% confidence intervals. Choosing RIGHT was generous in the Trust Game.

which the dependent variable is a dummy that takes value 1 if the Second-Mover chose RIGHT. Again, I cannot detect any significant link between adults' generosity and their parents' educational attainments. My results are robust to a alternative functional forms of parental education, too (see the Appendix, Tables C.16-C.18).

I then check, as before, if the result is also robust across age groups. In Table 6, I observe a negative, but insignificant correlation between generosity and low parental education for the youngest subjects and a positive, but insignificant correlation among the oldest. This pattern is similar to what I observed in the Dictator Game. Since I cannot easily test for differences in coefficients across logit regressions, I apply the seemingly unrelated regressions method using estimates from linear probability model regressions that are very similar to the logit regression estimates presented here (see the Appendix, TableC.21). I pairwise compare coefficients on parental educational attainment and find



Table 5: Generosity in the Trust Game and parental educational attainment

	(1)	(2)	(3)
Low-educated parents	0.033 (0.043)	0.023 (0.044)	0.040 (0.046)
Age		0.003 (0.002)	0.004* (0.002)
Gender		-0.071* (0.032)	-0.072* (0.032)
Employed		-0.010 (0.043)	-0.007 (0.043)
Single-person household		0.049 (0.050)	0.044 (0.050)
Urban residence		0.018 (0.038)	0.015 (0.037)
Father's age			-0.010* (0.005)
Mother's age			0.012* (0.006)
<i>N</i>	719	719	719

*Notes:* Logit regressions with the dependent variable being a dummy that takes value 1 if the subject generously chose RIGHT as the Second-Mover. Coefficients are  $dy/dx$  at mean with standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

that the link between generosity and parental education is not significantly different across age groups.<sup>9</sup> This conclusion holds for both genders.

I also check if men's endowment of generosity is more correlated with their parents' educational characteristics than women's or *vice versa*. The estimates presented in Table 7 indicate that this is not the case.

## 5 Discussion

In this section, I first show that the behavior in the two experiments is related by performing a within-subject analysis in which I exploit the fact that a total of 583 validated

<sup>9</sup>Column 1 vs. column 4:  $\chi^2 = 2.31, p = 0.129$ . Column 2 vs. column 5:  $\chi^2 = 1.54, p = 0.318$ . Column 3 vs. column 6:  $\chi^2 = 0.35, p = 0.503$ .

Table 6: Generosity in the Trust Game and parental educational attainment, by age

	20-30 years			31+ years		
	(1)	(2)	(3)	(4)	(5)	(6)
Low-educated parents	-0.106 (0.088)	-0.072 (0.102)	-0.063 (0.103)	0.047 (0.048)	0.037 (0.049)	0.046 (0.050)
<i>Controls</i>						
Own characteristics	No	Yes	Yes	No	Yes	Yes
Parents' ages	No	No	Yes	No	No	Yes
<i>N</i>	211	211	211	508	508	508

*Notes:* Logit regressions with the dependent variable being a dummy that takes value 1 if the subject generously chose RIGHT as the Second-Mover. Coefficients are  $dy/dx$  at mean with standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table 7: Generosity in the Trust Game and parental educational attainment, by gender

	Men			Women		
	(1)	(2)	(3)	(4)	(5)	(6)
Low-educated parents	0.080 (0.067)	0.061 (0.069)	0.081 (0.072)	0.006 (0.054)	-0.007 (0.054)	0.006 (0.056)
<i>Controls</i>						
Own characteristics	No	Yes	Yes	No	Yes	Yes
Parents' ages	No	No	Yes	No	No	Yes
<i>N</i>	374	374	374	345	345	345

*Notes:* Logit regressions with the dependent variable being a dummy that takes value 1 if the subject generously chose RIGHT as the Second-Mover. Coefficients are  $dy/dx$  at mean with standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

individuals, about whom I know their parents' educational attainments, participated in both the Dictator Game in 2009 and the Trust Game in 2010. I regress the fraction of the money sum shared with the Recipient in the Dictator Game on a dummy variable that takes value 1 if the subject generously chose RIGHT in the Trust Game (see Table 8). I observe that subjects choosing RIGHT in the Trust Game on average shared 7-13 percentage points more of the money sum in the Dictator Game. This is highly robust for both young and old as well as men and women and it suggests that the non-link between adults' other-regarding behavior and their parents' educational attainment

is generalizable across different social dilemmas.

Table 8: Regressions of Dictator Game choice on Trust Game choice

	Full sample (1)	Full sample (2)	≤ 30 years (3)	> 30 years (4)	Men (5)	Women (6)
Chose RIGHT	0.11*** (0.023)	0.10*** (0.023)	0.12** (0.046)	0.098*** (0.025)	0.13*** (0.030)	0.072* (0.034)
Age		0.004*** (0.001)	0.002 (0.005)	0.009*** (0.002)	0.005*** (0.001)	0.003* (0.001)
Female		0.027 (0.019)	0.047 (0.036)	0.023 (0.022)		
Employed		-0.031 (0.025)	-0.070 (0.042)	0.003 (0.030)	-0.010 (0.034)	-0.055 (0.036)
Single-person household		0.014 (0.027)	-0.034 (0.041)	0.051 (0.036)	0.057 (0.037)	-0.045 (0.040)
Metropolitan residence		0.016 (0.022)	-0.013 (0.037)	0.015 (0.027)	-0.003 (0.030)	0.043 (0.031)
Constant	0.28*** (0.011)	0.12** (0.044)	0.25* (0.12)	-0.10 (0.080)	0.062 (0.061)	0.21*** (0.059)
<i>N</i>	583	583	180	403	301	282
<i>R</i> <sup>2</sup>	0.040	0.076	0.066	0.105	0.114	0.055

*Notes:* OLS regressions with the fraction shared with the Recipient as the dependent variable. Standard errors in parentheses. “Chose RIGHT” is a dummy variable that takes value 1 if the subject chose RIGHT in the Trust Game and 0 otherwise.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

The question is then why I do not find a link when children studies have done so? One possible explanation is that sociodemographic characteristics are generally poor predictors of adults’ other-regarding behavior. I check this by regressing generosity in the Dictator Game and Trust Game experiments separately on the subjects’ own sociodemographic characteristics, i.e. their educational attainment and gross income. I find such sociodemographic characteristics to be rather uncorrelated with generosity in both experiments (see the Appendix, Tables C.3 and C.4). If anything, less-educated Danish adults appear to be more generous than better-educated which is in line with the negative, but insignificant effect from parental educational attainment on adults’ generosity that was observed in Figures B.3 and B.6.

Another possible explanation is more sample-specific. Bauer et al. (2014) studied children and parents who were recruited from Prague, Czech Republic. In order to justify that there exists a positive (negative) relationship between generosity (spitefulness) and parental educational attainment as found in their experiment, they used Czech data from the European Values Survey to document that low-educated Czech respondents think it is less important to teach children to be selfless than better-educated respondents do. I am able to perform a similar analysis by using Danish value data.<sup>10</sup> In the Danish survey, the respondents were asked to choose up to five traits which they thought were most important to teach children. They could choose from a menu of 11 options. One option was to teach children to “think of others”. In a series of Fisher’s exact tests and logit regressions, I check whether low-educated respondents, who were parents themselves, were more or less likely than better-educated parents to choose this option. I find no significant relationship, though.<sup>11</sup> This is robust across the interviews conducted in 1990, 1999, and 2008.<sup>12</sup> Hence, the results reported in both this paper and previous children studies could possibly be sample- or country-specific. This could also explain why the conclusion drawn in the Chinese study by Chen et al. (2013) differs from those drawn in European studies by Benenson et al. (2007) and Bauer et al. (2014).

Other possible explanations are more speculative. One such explanation is that the SES gap in other-regarding preferences closes in late adolescence (also commonly known as the “impressionable years” in the psychology, sociology, and political science literatures), which is an age group that has neither been investigated in this paper nor in the before-mentioned children studies. Research by Fehr et al. (2008), Almås et al. (2010), Fehr et al. (2013), and Bauer et al. (2014) have all documented that there exists a positive link between children’s generosity and their age, thus concluding that other-regarding preferences develop in childhood. In addition, Benenson et al. (2007) found the SES

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<sup>10</sup>I use data from the Danish Value Survey, cross-section 1981-2008, which was collected by Peter Gundelach, Department of Sociology, University of Copenhagen. This data was made available to me by Dansk Data Arkiv (archive no. DDA-23923). All results and interpretations reported in this paper are my own.

<sup>11</sup>I use Fisher’s exact tests to test whether the share of low-educated parents who thought it was important to teach children to think of others was different from the fraction of better-educated parents. I can reject that these fractions are different across educational attainments in any interview year. 1990:  $p = 0.229$ , 1999:  $p = 0.863$ , 2008:  $p = 0.942$ . See also a logit regression analysis in the Appendix, Table C.5.

<sup>12</sup>Subjects were not asked about their own educational attainment in the first interview-year, 1981.

gap in generosity to be increasing in young childhood (ages 4-9). By combining these observations with findings that maturity is positively linked to SES (e.g. Boehm, 1962) and that the SES gap in other domains such as school performance closes in adolescence (e.g. White, 1982), is it then possible that the apparent SES gap in other-regarding preferences is closing in maturity and in age later in childhood, too? Future research is necessary to answer this question.

Yet another speculative explanation is that peers, as compared to parents, become increasingly important in age. In a German survey study, Dohmen et al. (2012) found peer effects to be important for the endowment of risk preferences and trust attitudes in young adults. For children's other-regarding preferences, however, Bauer et al. (2014) did not find peers to be important. Future research could also investigate the importance of peers for adults' preferences and behavior.

## 6 Conclusion

In this paper, I have made three important contributions to the ongoing research that attempts to identify where the heterogeneity in (other-regarding) preferences and behavior originates from. First, I use a comparably large and heterogenous adult sample to find that adults' other-regarding behavior is not related to their socioeconomic background, which I measure by their parents' educational attainments. Second, I find this result to be robust across two different social contexts; a Dictator Game and a Trust Game. Third, my findings are robust across age groups and genders, too.

I provide two possible explanations for why I cannot identify a relationship when other researchers have found children's other-regarding preferences to be related to their socioeconomic status (Benenson et al., 2007; Chen et al., 2013; Bauer et al., 2014). One is that sociodemographic characteristics in general are poor predictors of adults' other-regarding preferences. The other is that relationships between other-regarding behavior and socioeconomic background might be country-specific.

With 80% of the heterogeneity in adults' other-regarding preferences being unexplained by nature (Cesarini et al. (2009)), there exists an important and latent potential in understanding how nurture intervenes in individuals' development and formation of

such preferences. In this paper I conclude that socioeconomic background - at least when measured by parental educational attainment - cannot explain this heterogeneity.

## References

- ALFORD, J. R., C. L. FUNK, AND J. R. HIBBING (2005): “Are Political Orientations Genetically Transmitted?” *American Political Science Review*, 99, 153–167.
- ALMÅS, I., A. W. CAPPELEN, K. G. SALVANES, E. Ø. SØRENSEN, AND B. TUNGODDEN (2012): “Willingness to Compete: Family Matters,” Working paper.
- ALMÅS, I., A. W. CAPPELEN, E. Ø. SØRENSEN, AND B. TUNGODDEN (2010): “Fairness and the Development of Inequality Acceptance,” *Science*, 328, 1176–1178.
- BAUER, M., J. CHYTILOVÁ, AND B. PERTOLD-GEBICKA (2014): “Parental Background and Other-Regarding Preferences in Children,” *Experimental Economics*, 17, 24–46.
- BENENSON, J. F., J. PASCOE, AND N. RADMORE (2007): “Children’s Altruistic Behavior in the Dictator Game,” *Evolution and Human Behavior*, 28, 168–175.
- BENZ, M. AND S. MEIER (2008): “Do People Behave in Experiments as in the Field? Evidence from Donations,” *Experimental Economics*, 11, 268–281.
- BIRKELAND, S., A. W. CAPPELEN, E. Ø. SØRENSEN, AND B. TUNGODDEN (forthcoming): “An Experimental Study of Prosocial Motivation Among Criminals,” *Experimental Economics*.
- BISIN, A. AND T. VERDIER (2000): ““Beyond the Melting Pot”: Cultural Transmission, Marriage, and the Evolution of Ethnic and Religious Traits,” *Quarterly Journal of Economics*, 115, 955–988.
- BJÖRKLUND, A., M. LINDAHL, AND E. PLUG (2004): “Intergenerational Effects in Sweden: What Can We Learn from Adoption Data?” Institute for the Study of Labor Discussion Paper 1194.

- (2006): “The Origins of Intergenerational Associations: Lessons from Swedish Adoption Data,” *Quarterly Journal of Economics*, 121, 999–1028.
- BOEHM, L. (1962): “The Development of Conscience: A Comparison of American Children of Different Mental and Socioeconomic Levels,” *Child Development*, 33, 575–590.
- BONKE, J. (2009): *Forældres Brug af Tid og Penge på Deres Børn*, Rockwool Fondens Forskningsenhed.
- BONKE, J. AND G. ESPING-ANDERSEN (2011): “Family Investments in Children - Productivities, Preferences, and Parental Child Care,” *European Sociological Review*, 27, 43–55.
- BORGLOH, S., A. DANNENBERG, AND B. ARETZ (2010): “On the Construction of Social Preferences in Lab Experiments,” ZEW Discussion Paper No. 10-085.
- BRANDTS, J. AND G. CHARNESS (2011): “The Strategy versus the Direct-Response Method: A First Survey of Experimental Comparisons,” *Experimental Economics*, 14, 375–398.
- CASARI, M. AND T. N. COX (2009): “The Strategy Method Lowers Measured Trustworthy Behavior,” *Economics Letters*, 103, 157–159.
- CESARINI, D., C. T. DAWES, M. JOHANNESSON, P. LICHTENSTEIN, AND B. WALLACE (2009): “Genetic Variation in Preferences for Giving and Risk Taking,” *Quarterly Journal of Economics*, 124, 809–842.
- CHEN, Y., L. ZHU, AND Z. CHEN (2013): “Family Income Affects Children’s Altruistic Behavior in the Dictator Game,” *PLOS ONE*, 8, e80419.
- CROSON, R. AND U. GNEEZY (2009): “Gender Differences in Preferences,” *Journal of Economic Literature*, 47, 448–474.
- DOHMEN, T., A. FALK, D. HUFFMAN, AND U. SUNDE (2012): “The Intergenerational Transmission of Risk and Trust Attitudes,” *Review of Economic Studies*, 79, 645–677.

- ENGEL, C. (2011): “Dictator Games: A Meta Study,” *Experimental Economics*, 14, 583–610.
- FEHR, E., H. BERNHARD, AND B. ROCKENBACH (2008): “Egalitarianism in Young Children,” *Nature*, 454, 1079–1083.
- FEHR, E., D. RÜTZLER, AND M. SUTTER (2013): “The Development of Egalitarianism, Altruism, Spite, and Parochialism in Childhood and Adolescence,” *European Economic Review*, 64, 369–383.
- FOWLER, J. H., L. A. BAKER, AND C. T. DAWES (2008): “Genetic Variation in Political Participation,” *American Political Science Review*, 102, 233–248.
- FRANZEN, A. AND S. POINTNER (2013): “The External Validity of Giving in the Dictator Game: A Field Experiment Using the Misdirected Letter Technique,” *Experimental Economics*, 16, 155–169.
- GÄCHTER, S. AND B. HERRMANN (2011): “The Limits of Self-Governance when Cooperators Get Punished: Experimental Evidence from Urban and Rural Russia,” *European Economic Review*, 55, 193–210.
- GURYAN, J., E. HURST, AND M. KEARNEY (2008): “Parental Education and Parental Time with Children,” *Journal of Economic Perspectives*, 22, 23–46.
- HARRIS, K. M., F. F. FURSTENBERG JR., AND J. K. MARMER (1998): “Paternal Involvement with Adolescents in Intact Families: The Influence of Fathers over the Life Course,” *Demography*, 35, 201–216.
- HOLMLUND, H., M. LINDAHL, AND E. PLUG (2011): “The Causal Effect of Parents’ Schooling on Children’s Schooling: A Comparison of Estimation Methods,” *Journal of Economic Literature*, 49, 615–651.
- KNIGHT, G. P. AND S. KAGAN (1977): “Development of Prosocial and Competitive Behaviors in Anglo-American and Mexican-American Children,” *Child Development*, 48, 1385–1394.



- OKUMURA, T. AND E. USUI (forthcoming): “Do Parents’ Social Skills Influence Their Children’s Sociability?” *The B.E. Journal of Economic Analysis and Policy*.
- RAND, D. G., J. D. GREENE, AND M. A. NOWAK (2012): “Spontaneous Giving and Calculated Greed,” *Nature*, 489, 427–430.
- RASMUSSEN, A. W. (2009): “Allocation of Parental Time and the Long-Term Effect on Children’s Education,” Aarhus School of Business, Aarhus University, Department of Economics WP 09-22.
- THÖNI, C., J.-R. TYRAN, AND E. WENGSTRÖM (2012): “Microfoundations of Social Capital,” *Journal of Public Economics*, 96, 635–643.
- WHITE, K. R. (1982): “The Relation Between Socioeconomic Status and Academic Achievement,” *Psychological Bulletin*, 91, 461–481.
- WILHELM, M. O., E. BROWN, P. M. ROONEY, AND R. STEINBERG (2008): “The Intergenerational Transmission of Generosity,” *Journal of Public Economics*, 92, 2146–2156.
- ZELLNER, A. (1962): “An Efficient Method of Estimating Seemingly Unrelated Regressions and Tests for Aggregation Bias,” *Journal of the American Statistical Association*, 57, 348–368.

# Appendix

The Appendix is structured as follows. Section A presents the invitation and reminder letters sent out by Statistics Denmark. In Section B, I present translated versions of the instructions to the experiments. In Section C, I provide robustness checks of the regressions that were presented in the main paper.

## A Mailings

Statistics Denmark sent out invitations and reminders to the waves. In Figure A.1 and A.2, I show the invitation and reminder letters, respectively, for iLEE2. The English translation of the invitation letter is:

“Dear [name],

Statistics Denmark and the Internet Laboratory for Experimental Economics (iLEE) at the Department of Economics, University of Copenhagen invited you to participate in an experiment concerning economic decision processes in May 2008. You completed that experiment and we therefore invite you to participate in a follow up experiment.

Your participation is, of course, voluntary, but we very much hope that you would like to participate again as it is interesting for us to see how decisions made in the two experiments are related. Your decisions in the experiment will be handled with strict confidentiality and anonymity.

By participating in the experiment you have the opportunity to earn money. We cannot guarantee that you will earn a specific amount since your earnings will depend on your own as well as others’ decisions. The rules are described in more detail on the website. In order to ensure full anonymity, all participants log in with a randomly determined number. To see the details of the experiment such as the task, duration etc. we kindly ask you to log in to our website as soon as possible:

**[www.econ.ku.dk/ilee](http://www.econ.ku.dk/ilee)** with your log in number: **finalidnumber**

In case you encounter problems logging in or if you have any questions, you are welcome to contact the Department of Economics by email **[ilee@econ.ku.dk](mailto:ilee@econ.ku.dk)** or by phone 35 32 44 09.

Kind regards and thank you in advance for your help.

Isak Isaksen  
Head of Office, Statistics Denmark

Jean-Robert Tyran  
Professor, Department of Economics”

The English translation of the reminder letter is:

“Dear [name],

Statistics Denmark and the Internet Laboratory for Experimental Economics (iLEE) at the Department of Economics, University of Copenhagen invited you about two weeks ago to participate in an experiment concerning economic decision processes. You were invited, because you completed a similar experiment in May 2008. Your participation is valuable to us as it is interesting for us to see how decisions made in the two experiments are related.

**The experiment is open until Sunday July 19** so everyone has the opportunity to complete it. If you have already initiated the experiment you will continue where you let go when you log in again.

The website will be inaccessible some days during the period, because we move our server. In that case, please try again at some other point in time.

To see the details of the experiment such as the task, duration etc. we kindly ask you to log in to our website as soon as possible:

**[www.econ.ku.dk/ilee](http://www.econ.ku.dk/ilee)** with your log in number: **finalidnumbern**

w In case you encounter problems logging in or if you have any questions, you are welcome to contact the Department of Economics by email **[ilee@econ.ku.dk](mailto:ilee@econ.ku.dk)** or by phone 35 32 44 09 on Wednesdays between 2pm and 3pm.

Kind regards and thank you in advance for your help.

Isak Isaksen  
Head of Office, Statistics Denmark

Jean-Robert Tyran  
Professor, Department of Economics"

Figure A.1: Invitation letter to iLEE2 in 2009



«Navn»  
«Coadr»  
«Adresse»  
«By»  
«Post» «Postdist»

**Kære «Navn»**

Danmarks Statistik og Internet Laboratoriet for Eksperimentel Økonomi (iLEE) ved Økonomisk Institut på Københavns Universitet inviterede dig i maj måned 2008 til at deltage i et eksperiment vedrørende økonomiske beslutningsprocesser. Dette eksperiment gennemførte du, og vi inviterer dig derfor hermed til at deltage i et opfølgende eksperiment.

Din deltagelse er naturligvis frivillig, men vi håber meget, at du igen vil deltage, da det er interessant for os at se, hvordan beslutninger i de to forskellige eksperimenter hænger sammen. Dine beslutninger i eksperimentet bliver behandlet strengt fortroligt og anonymt.

Ved at deltage i eksperimentet får du mulighed for at tjene penge. Vi kan ikke garantere dig, at du vil tjene et bestemt beløb, idet din indtjening vil afhænge af dine egne samt andre deltageres beslutninger. De nærmere regler er beskrevet på hjemmesiden.

For at sikre deltagerne fuld anonymitet logger alle deltagere ind med et tilfældigt udvalgt nummer. For at se detaljerne om eksperimentet, herunder opgaven, tidsforbrug mv., bedes du snarest muligt logge ind på vores hjemmeside:

**[www.econ.ku.dk/ilee](http://www.econ.ku.dk/ilee) med dit login-nummer: «finalid\_number»**

Hvis du har problemer med at logge ind eller har yderligere spørgsmål, er du velkommen til at kontakte os enten ved at sende en email til [ilee@econ.ku.dk](mailto:ilee@econ.ku.dk) eller ved at ringe til os på telefon 35 32 44 09.

Med venlig hilsen og på forhånd tak for din hjælp.

Isak Isaksen  
Kontorchef, Danmarks Statistik

Jean-Robert Tyran  
Professor, Økonomisk Institut

**Danmarks Statistik**  
Sejrøgade 11  
2100 København Ø

Tlf. 3917 3917  
Fax. 3917 3999  
CVR 17-1504-13

[dst@dst.dk](mailto:dst@dst.dk)  
[www.dst.dk](http://www.dst.dk)

Figure A.2: Reminder letter to iLEE2 in 2009



«Navn»  
«Coadr»  
«Adresse»  
«By»  
«Post» «Postdist»

**Kære «Navn»**

Danmarks Statistik og Internet Laboratoriet for Eksperimentel Økonomi (iLEE) ved Økonomisk Institut på Københavns Universitet inviterede dig for godt to uger siden til at deltage i et eksperiment vedrørende økonomiske beslutningsprocesser. Du blev inviteret, fordi du i maj måned 2008 gennemførte et lignende eksperiment. Din deltagelse er værdifuld for os, da det er interessant for os at se, hvordan beslutninger i de to forskellige eksperimenter hænger sammen.

**Eksperimentet er åbent til og med søndag d. 19. juli**, så alle får mulighed for at gennemføre. Hvis du ikke har logget ind endnu, håber vi, at du vil vælge at gøre det nu. Hvis du allerede har påbegyndt eksperimentet, vil du fortsætte, hvor du slap, når du logger ind igen.

Enkelte dage i perioden vil hjemmesiden være utilgængelig pga. flytning af vores server. Prøv i givet fald igen på et andet tidspunkt.

For at se detaljerne om eksperimentet, herunder tidsforbrug, indtjeningsvilkår mv., bedes du snarest muligt logge ind på vores hjemmeside:

**[www.econ.ku.dk/ilee](http://www.econ.ku.dk/ilee)** med dit login-nummer: **«finalid\_number»**

Vi håber, at du vælger at gennemføre eksperimentet. Hvis du har problemer med at logge ind eller har yderligere spørgsmål, er du velkommen til at kontakte os enten ved at sende en email til [ilee@econ.ku.dk](mailto:ilee@econ.ku.dk) eller ved at ringe til os på telefon 35 32 44 09 på onsdage mellem 14 og 15.

Med venlig hilsen og på forhånd tak for din hjælp.

Isak Isaksen  
Kontorchef, Danmarks Statistik

Jean-Robert Tyran  
Professor, Økonomisk Institut

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[www.dst.dk](http://www.dst.dk)

## B Instructions

### B.1 Instructions for the Dictator Game

[Screen 1: Instructions for part 1]

#### Instructions for the experiment's first part

All participants in the experiment initially receive 75 DKK.

You are now involved in **2** decision situations.

In each situation, you will be randomly matched with another participant. (It will not be the same participant.)

#### Your decision

In one situation, you are the decision maker. **You must decide how you wish to divide the total amount that you and the other participant have been given ( $75 + 75 = 150$  DKK) between the two of you.**

The initial situation is shown below.

Figure B.3: Illustration explaining the initial situation in the Dictator Game



Translated text: “Udgangspunkt”=Initial situation. “Dig”=You. “Den anden”=The other one.

[Continue]

[Screen 2: Instructions for part 2]

#### The other situation

**In the other situation, the other participant is the decision maker.** He or she must make a similar decision about how he or she wants to divide the total amount that you have initially been given.

## Outcome

Only one of the situations will be selected for payments. Both you and that other participant will be paid according to the decision made in that situation. It is equally likely that you will be paid according to the situation in which you are the decision maker as it is that you will be paid according to the situation in which the other participant is the decision maker.

[Go back] [Continue]

[Screen 3: Decision screen]

### Your decision

Pick one of the options below and click **Submit decision**.

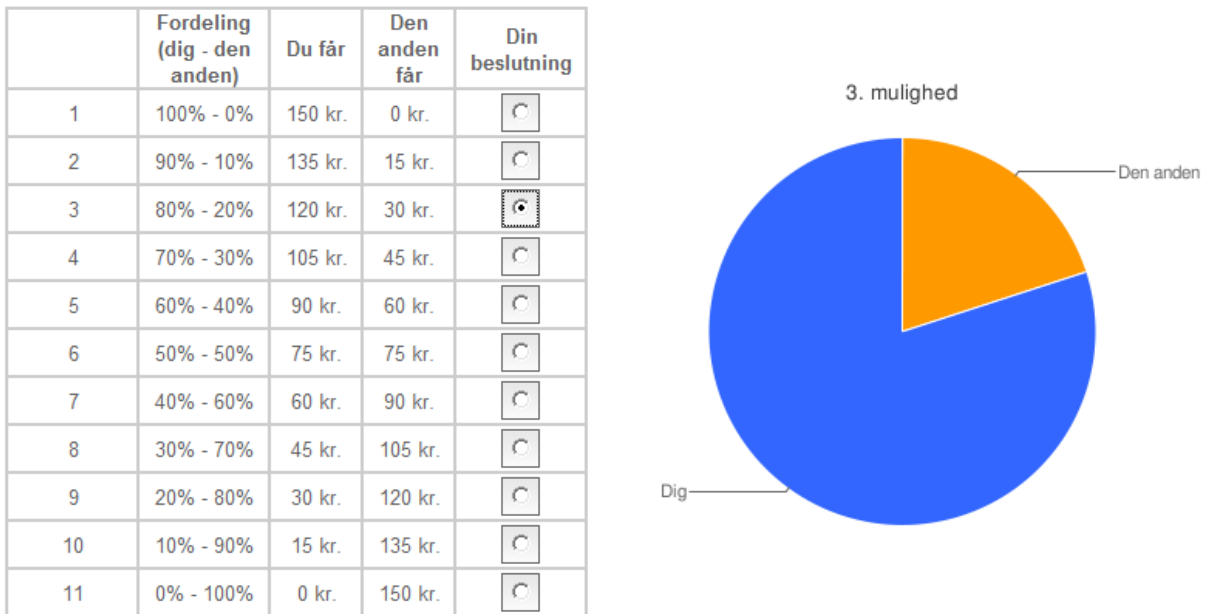
Figure B.4: Screenshot of the decision screen in the Dictator Game

	Fordeling (dig - den anden)	Du får	Den anden får	Din beslutning
1	100% - 0%	150 kr.	0 kr.	<input type="radio"/>
2	90% - 10%	135 kr.	15 kr.	<input type="radio"/>
3	80% - 20%	120 kr.	30 kr.	<input type="radio"/>
4	70% - 30%	105 kr.	45 kr.	<input type="radio"/>
5	60% - 40%	90 kr.	60 kr.	<input type="radio"/>
6	50% - 50%	75 kr.	75 kr.	<input type="radio"/>
7	40% - 60%	60 kr.	90 kr.	<input type="radio"/>
8	30% - 70%	45 kr.	105 kr.	<input type="radio"/>
9	20% - 80%	30 kr.	120 kr.	<input type="radio"/>
10	10% - 90%	15 kr.	135 kr.	<input type="radio"/>
11	0% - 100%	0 kr.	150 kr.	<input type="radio"/>

Translated text: “Fordeling (dig - den anden)”=Division (you - the other). “Du får”=You get. “Den anden får”=The other gets. “Din beslutning”=Your decision

[See the instructions again] [Submit decision]

Figure B.5: Screenshot of the decision screen in the Dictator Game after clicking 80-20



Translated text: “Fordeling (dig - den anden)”=Division (you - the other). “Du får”=You get. “Den anden får”=The other gets. “Din beslutning”=Your decision. “3. mulighed”=3rd option. “Dig”=You. “Den anden”=The other one.

## B.2 Instructions for the Trust Game

[Screen 1: Instructions for part 1]

### Instructions for first part of the experiment

You are involved in two decision situations.

In each situation you are randomly matched with another participant. It is not the same participant in the two situations.

Only one of the situations will matter for payments. Both you and the other participant will be paid according to this situation. It is randomly determined which situation will matter for payments. It is equally likely that you will be paid according to one situation or the other.

[Continue >>]

[Screen 2: Instructions for the first situation]

### First situation

In this situation you are the **first decision maker** and another participant is the **second decision maker**.

You have to choose between IN and OUT.



If you choose OUT, then the second decision maker will not affect the outcome of the situation.

If you choose IN, then the outcome will depend on the choice of the second decision maker. The second decision maker chooses between RIGHT and LEFT **without** knowing whether you have chosen IN or OUT.

The table shows the three possible outcomes:

	<b>You receive</b>	<b>The first decision maker receives</b>
If you choose <b>OUT</b>	50 DKK	20 DKK
If you choose <b>IN</b> and the second decision maker chooses <b>LEFT</b>	20 DKK	90 DKK
If you choose <b>IN</b> and the second decision maker chooses <b>RIGHT</b>	80 DKK	40 DKK

The situation is illustrated here:

[See Figure B.6.]

**What do you choose?**

[ ] OUT: You receive 50 DKK and the other decision maker receives 20 DKK.

[ ] IN: The other decision maker's decision between LEFT and RIGHT will determine the outcome.

[Submit decision]

[Screen 3: Instructions for the second situation]

**Second situation**

In this situation you are the second decision maker while the other participant is the first decision maker. It is not the same participant as in the first situation.

If the first decision maker chooses OUT then your decision, which is illustrated below, will not affect the outcome of the situation.

If the first decision maker instead chooses IN then the outcome will depend on your choice.

You have to choose between LEFT and RIGHT without knowing whether the first decision maker has chosen IN or OUT.

The table shows the three possible outcomes:

	<b>The first decision maker receives</b>	<b>You receive</b>
.		
.		

If the first decision maker chooses <b>OUT</b>	50 DKK	20 DKK
If the first decision maker chooses <b>IN</b> and and you choose <b>LEFT</b>	20 DKK	90 DKK
If the first decision maker chooses <b>IN</b> and and you choose <b>RIGHT</b>	80 DKK	40 DKK

The situation is illustrated here:

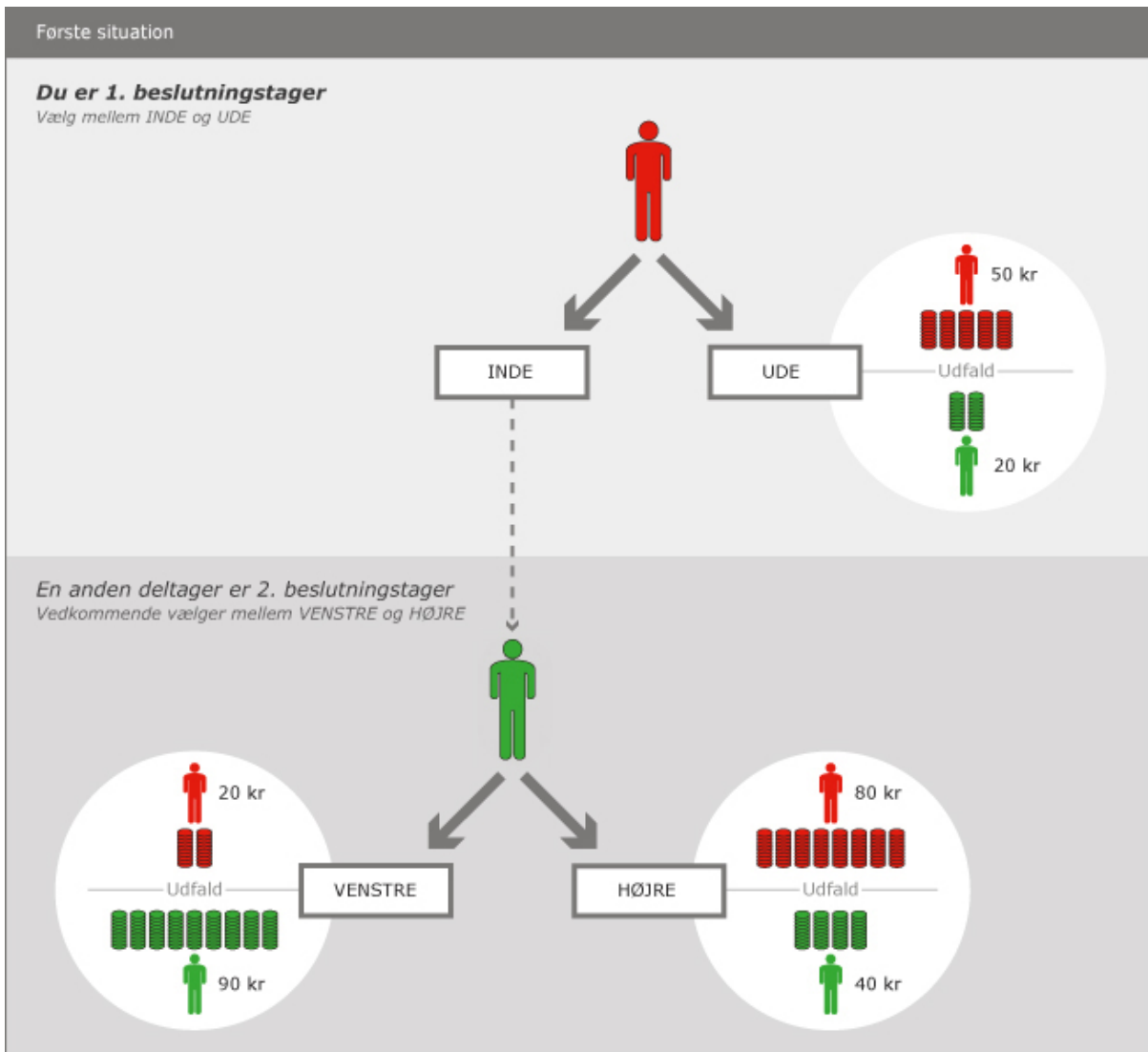
[See Figure B.7.]

**Given that the first decision maker chooses IN, what do you choose?**

- LEFT: You receive 90 DKK and the other decision maker receives 20 DKK.
- RIGHT: You receive 40 DKK and the other decision maker receives 80 DKK.

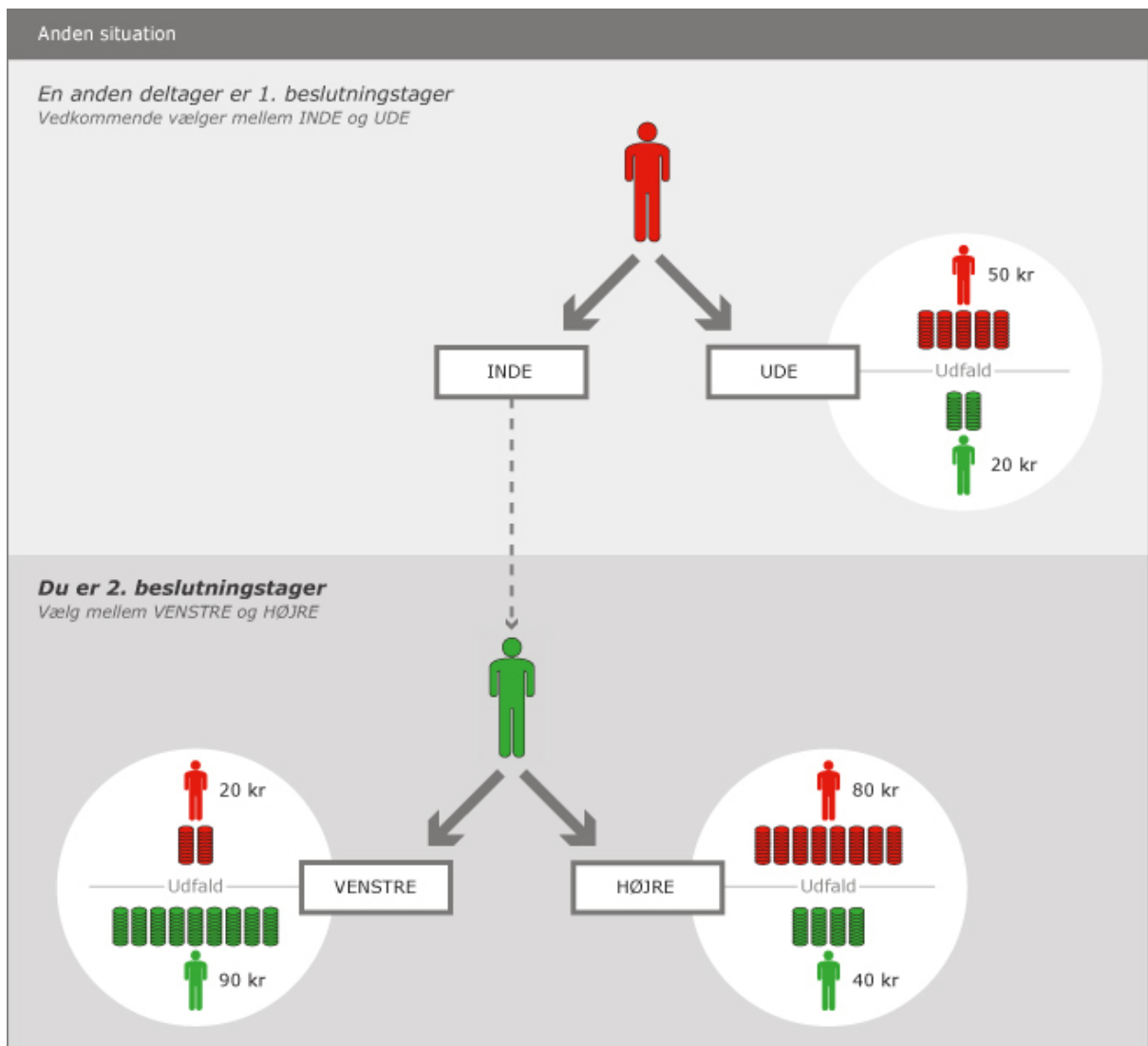
**[Submit decision]**

Figure B.6: Illustration of the First-Mover's decision problem (Screen 2)



Translated text: “INDE” = IN. “UDE” = OUT. “VENSTRE” = LEFT. “HØJRE” = RIGHT. “kr.” = DKK. “UDFALD” = OUTCOME.

Figure B.7: Illustration of the Second-Mover's decision problem (Screen 3)



Translated text: "INDE" = IN. "UDE" = OUT. "VENSTRE" = LEFT. "HØJRE" = RIGHT. "kr." = DKK. "UDFALD" = OUTCOME.

## C Results

I provide additional descriptive statistics and results in Subsection C.1 and robustness checks of the results presented in the paper in Subsection C.2.

### C.1 Additional results

In this section, I present the following additions to the paper:

Figure C.8: Histograms of both paternal and maternal educational attainment.

Table C.1: Regressions of gross income on educational attainment.

Table C.2: Regression of subject's educational attainment on parental educational attainment.

Table C.3: Regressions of Dictator Game choice on own characteristics.

Table C.4: Regressions of Trust Game choice on own characteristics.

Table C.5: Regressions of Danish parents' values on their educational attainment.

Figure C.8: Distribution of parental educational attainment

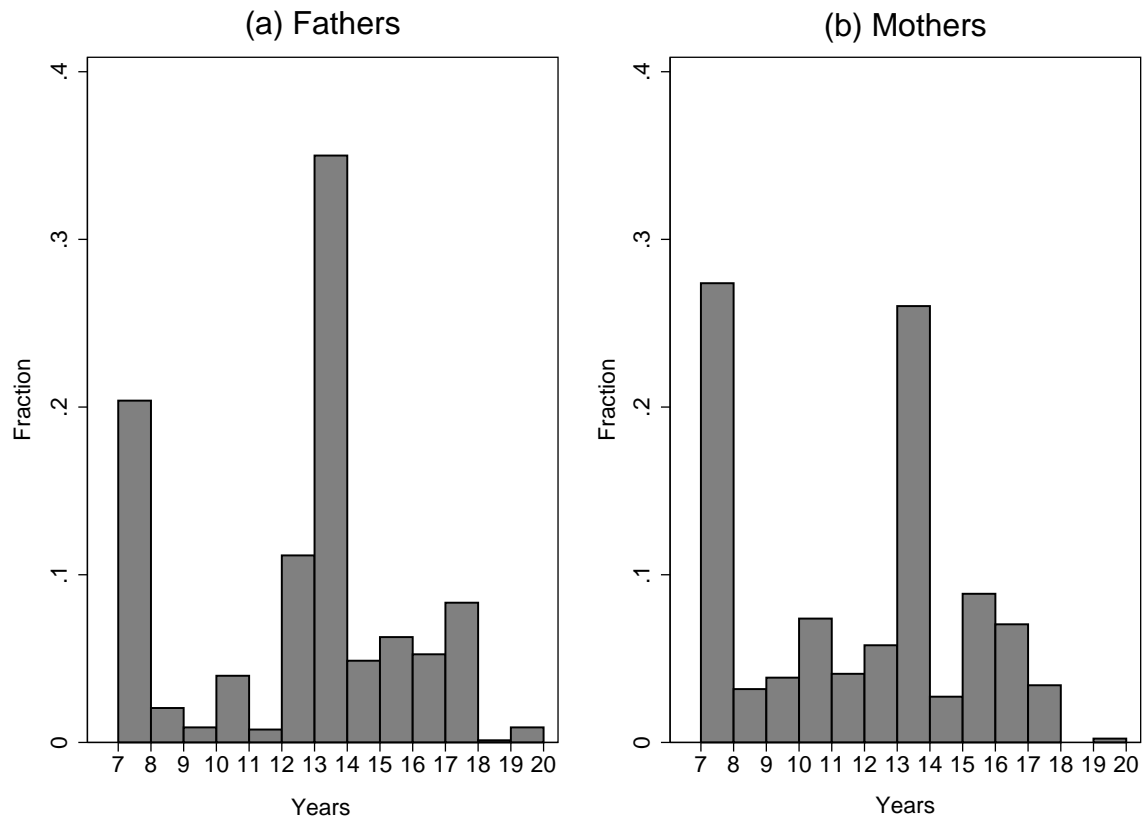


Table C.1: Income and educational attainment

	(1)	(2)
Years of education	0.26*** (0.0037)	0.17*** (0.0036)
Age		0.027*** (0.00070)
Female		-0.58*** (0.020)
Employed		2.07*** (0.024)
Single-person household		0.017 (0.025)
Metropolitan residence		-0.065** (0.024)
Constant	-0.28*** (0.046)	-1.51*** (0.062)
$N$	38706	38706
$R^2$	0.112	0.271

*Notes:* OLS regressions with own gross income in 2009 in 00'000 DKK as the dependent variable. Standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table C.2: Intergenerational dependency in educational attainment

	(1)	(2)	(3)
Father's years of education	0.11*** (0.0062)	0.11*** (0.0057)	0.11*** (0.0057)
Mother's years of education	0.088*** (0.0063)	0.14*** (0.0061)	0.14*** (0.0061)
Age		0.065*** (0.0018)	0.068*** (0.0019)
Female		0.25*** (0.033)	0.25*** (0.033)
Employed		1.48*** (0.046)	1.47*** (0.046)
Single-person household		-0.20*** (0.044)	-0.21*** (0.044)
Urban residence		0.63*** (0.038)	0.61*** (0.038)
Father's age			0.0061 (0.0045)
Mother's age			0.032*** (0.0051)
Constant	10.7*** (0.074)	6.22*** (0.12)	5.13*** (0.16)
$N$	16566	16566	16566
$R^2$	0.056	0.200	0.206

*Notes:* OLS regressions with own education in years as the dependent variable. Standard errors in parentheses. Father's/Mother's age is measured at the parents' ages on January 1 in the subject's birth year.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$



Table C.3: Regressions of Dictator Game choice on subject's own characteristics

	(1)	(2)	(3)	(4)
Years of education	-0.0059 (0.0040)	-0.0081* (0.0041)		
Log(gross income)			0.00036 (0.012)	-0.028 (0.017)
Age		0.0047*** (0.00086)		0.0052*** (0.00096)
Female		0.027 (0.017)		0.022 (0.017)
Employed		-0.044 (0.028)		-0.033 (0.031)
Single-person household		0.033 (0.024)		0.033 (0.024)
Metropolitan residence		0.0091 (0.019)		0.0025 (0.019)
Constant	0.39*** (0.055)	0.27*** (0.060)	0.31*** (0.016)	0.16*** (0.041)
<i>N</i>	740	740	739	739
<i>R</i> <sup>2</sup>	0.003	0.046	0.000	0.045

*Notes:* OLS regressions with the fraction shared with the Recipient as the dependent variable. Standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table C.4: Regressions of Trust Game choice on subject's own characteristics

	(1)	(2)	(3)	(4)
Years of education	-0.018* (0.007)	-0.021** (0.008)		
Log(gross income)			0.011 (0.022)	-0.017 (0.024)
Age		0.004* (0.002)		0.004* (0.002)
Female		-0.071* (0.032)		-0.074* (0.033)
Employed		-0.000 (0.043)		-0.004 (0.044)
Single-person household		0.040 (0.050)		0.046 (0.050)
Metropolitan residence		0.032 (0.038)		0.018 (0.038)
<i>N</i>	718	718	718	718

*Notes:* Logit regressions with the dependent variable a dummy that takes value 1 if the subject chose RIGHT as the Second-Mover. Coefficients are  $dy/dx$  at mean with standard errors in parentheses.

\* \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table C.5: Regressions of Danish parents' values on their educational attainment across interview years

	1990	1999	2008
Low education	-0.015 (0.043)	0.018 (0.046)	0.044 (0.036)
Age	-0.002 (0.0015)	-0.004** (0.001)	-0.002 (0.001)
Female	0.082* (0.040)	-0.003 (0.038)	0.038 (0.029)
Employed	0.060 (0.050)	-0.021 (0.048)	0.049 (0.041)
Categories chosen	0.170*** (0.041)	0.105** (0.036)	0.083** (0.029)
<i>N</i>	687	742	1148

*Notes:* Logit regressions with the dependent variable being a dummy that takes value 1 if the subject chose “think of others” as an important trait to teach children. Coefficients are  $dy/dx$  at mean with standard errors in parentheses. The data presented in this table is from the Danish Values Survey, cross-section 1981-2008.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

## C.2 Robustness checks

In this section, I present a range of robustness checks of the regressions presented in the paper. First, I correct for trend growth in parental educational attainment, i.e. the fact that younger cohorts on average are better-educated than older cohorts. I do this by identifying the 1st quartile of both the father's and the mother's schooling separately for each birth-year cohort in the full and representative sample of the Danish adult population which contains 40,000 individuals (see Section 2 in the paper). I find, for instance, that the 1st quartile paternal and maternal schooling for those born in 1989 is 12 and 11 years, respectively. This is more than the 1st quartile of paternal and maternal schooling for those born in 1973 which amounts to 7 years for both fathers and mothers. I then create a dummy variable that takes value 1 if both the paternal and maternal educational attainment for each birth-year cohort is within the 1st quartile. This means that the variable, for those born in 1989, takes value 1 if the father's educational attainment is maximally 12 years *and* if, at the same time, the mother's educational attainment is maximally 11 years.

As a second robustness check, I create a linear variable of parental educational attainment by taking the sum of the two parents' educational attainments. Third, I replace the dependent variable ( $\tau$ ) by a binary variable that takes value 1 if the subject was selfish, i.e. shared the subject shared nothing with the Recipient. For the Trust Game, I present similar robustness checks.

My robustness checks are listed below:

Table C.6: OLS regressions of generosity in **Dictator Game** on parental educational attainment corrected for trend growth.

Table C.7: OLS regressions of generosity in **Dictator Game** on sum of parental educational attainment.

Table C.8: LPM regressions of sharing nothing with the Recipient in the **Dictator Game** on parental educational attainment.

Table C.9: OLS regressions of generosity in **Dictator Game** on parental educational attainment corrected for trend growth, by subjects' age.

Table C.10: OLS regressions of generosity in **Dictator Game** on sum of parental educational attainment, by subjects' age.

Table C.11: LPM regressions of sharing nothing with the Recipient in the **Dictator Game** on parental educational attainment, by subjects' age.

Table C.12: OLS regressions of generosity in **Dictator Game** on parental educational attainment, by subjects' age (alternative age categorization).

Table C.13: OLS regressions of generosity in **Dictator Game** on parental educational attainment corrected for trend growth, by subjects' gender.

Table C.14: OLS regressions of generosity in **Dictator Game** on sum of parental educational attainment, by subjects' gender.

Table C.15: LPM regressions of sharing nothing with the Recipient in the **Dictator Game** on parental educational attainment, by subjects' gender.

Table C.16: Logit regressions of generosity in **Trust Game** on parental educational attainment corrected for trend growth.

Table C.17: Logit regressions of generosity in **Trust Game** on sum of parental educational attainment.

Table C.18: LPM regressions of generosity in **Trust Game** on parental educational attainment.

Table C.19: Logit regressions of generosity in **Trust Game** on parental educational attainment corrected for trend growth, by subjects' age.

Table C.20: Logit regressions of generosity in **Trust Game** on sum of parental educational attainment, by subjects' age.

Table C.21: LPM regressions of generosity in **Trust Game** on parental educational attainment, by subjects' age.

Table C.22: Logit regressions of generosity in **Trust Game** on parental educational attainment, by subjects' age (alternative categorization).

Table C.23: Logit regressions of generosity in **Trust Game** on parental educational attainment corrected for trend growth, by subjects' gender.

Table C.24: Logit regressions of generosity in **Trust Game** on sum of parental educational attainment, by subjects' gender.

Table C.25: LPM regressions of generosity in **Trust Game** on parental educational attainment, by subjects' gender.

Table C.6: Regressions of Dictator Game sharing on parental educational attainment corrected for trend growth

	(1)	(2)	(3)
Low-educated parents	0.047 (0.024)	0.021 (0.025)	0.018 (0.025)
<i>Controls</i>			
Own characteristics	No	Yes	Yes
Parents' ages	No	No	Yes
<i>N</i>	741	741	741
<i>R</i> <sup>2</sup>	0.005	0.041	0.046

*Notes:* OLS regressions with the fraction shared with the Recipient as the dependent variable. Standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table C.7: Regressions of Dictator Game sharing on sum of parental educational attainment

	(1)	(2)	(3)
Sum of parents' education	-0.0033* (0.0015)	-0.00069 (0.0016)	-0.00026 (0.0017)
<i>Controls</i>			
Own characteristics	No	Yes	Yes
Parents' ages	No	No	Yes
<i>N</i>	741	741	741
<i>R</i> <sup>2</sup>	0.006	0.041	0.046

*Notes:* OLS regressions with the fraction shared with the Recipient as the dependent variable. Standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table C.8: Regressions of sharing nothing in Dictator Game on parental educational attainment

	(1)	(2)	(3)
Low-educated parents	-0.089* (0.043)	-0.041 (0.045)	-0.035 (0.045)
<i>Controls</i>			
Own characteristics	No	Yes	Yes
Parents' ages	No	No	Yes
<i>N</i>	741	741	741
<i>R</i> <sup>2</sup>	0.006	0.030	0.035

*Notes:* LPM regressions with a dummy that takes value 1 if the subject shared nothing with the Recipient as the dependent variable. Standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table C.9: Regressions of Dictator Game sharing on parental educational attainment corrected for trend growth, by subjects' age

	19-30 years			31+ years		
	(1)	(2)	(3)	(4)	(5)	(6)
Low-educated parents	0.014 (0.071)	0.0010 (0.073)	-0.012 (0.073)	0.040 (0.026)	0.019 (0.026)	0.016 (0.026)
<i>Controls</i>						
Own characteristics	No	Yes	Yes	No	Yes	Yes
Parents' ages	No	No	Yes	No	No	Yes
<i>N</i>	223	223	223	518	518	518
<i>R</i> <sup>2</sup>	0.000	0.035	0.056	0.005	0.059	0.061

*Notes:* OLS regressions with the fraction shared with the Recipient as the dependent variable. Standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table C.10: Regressions of Dictator Game sharing on on sum of parental educational attainment, by subjects' age

	19-30 years			31+ years		
	(1)	(2)	(3)	(4)	(5)	(6)
Sum of parents' education	0.0013 (0.0038)	0.0025 (0.0040)	0.0053 (0.0041)	-0.0030 (0.0018)	-0.0014 (0.0018)	-0.0012 (0.0018)
<i>Controls</i>						
Own characteristics	No	Yes	Yes	No	Yes	Yes
Parents' ages	No	No	Yes	No	No	Yes
<i>N</i>	223	223	223	518	518	518
<i>R</i> <sup>2</sup>	0.000	0.037	0.063	0.006	0.059	0.061

*Notes:* OLS regressions with the fraction shared with the Recipient as the dependent variable. Standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table C.11: Regressions of sharing nothing in Dictator Game on parental educational attainment, by subjects' age

	19-30 years			31+ years		
	(1)	(2)	(3)	(4)	(5)	(6)
Low-educated parents	-0.10 (0.13)	-0.052 (0.13)	-0.0027 (0.13)	-0.068 (0.046)	-0.033 (0.046)	-0.032 (0.047)
<i>Controls</i>						
Own characteristics	No	Yes	Yes	No	Yes	Yes
Parents' ages	No	No	Yes	No	No	Yes
<i>N</i>	223	223	223	518	518	518
<i>R</i> <sup>2</sup>	0.003	0.043	0.073	0.004	0.050	0.051

*Notes:* LPM regressions with a dummy that takes value 1 if the subject shared nothing with the Recipient as the dependent variable. Standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$



Table C.12: Regressions of Dictator Game sharing on parental educational attainment, by subjects' age (alternative categorization)

	19-25 years			26+ years		
	(1)	(2)	(3)	(4)	(5)	(6)
Low-educated parents	-0.018 (0.074)	-0.045 (0.078)	-0.053 (0.079)	0.037 (0.023)	0.0082 (0.023)	0.0033 (0.024)
<i>Controls</i>						
Own characteristics	No	Yes	Yes	No	Yes	Yes
Parents' ages	No	No	Yes	No	No	Yes
<i>N</i>	141	141	141	600	600	600
<i>R</i> <sup>2</sup>	0.000	0.028	0.035	0.004	0.052	0.058

*Notes:* OLS regressions with the fraction shared with the Recipient as the dependent variable. Standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table C.13: Regressions of Dictator Game sharing on parental educational attainment corrected for trend growth, by subjects' gender

	Men			Women		
	(1)	(2)	(3)	(4)	(5)	(6)
Low-educated parents	0.051 (0.037)	0.011 (0.037)	0.004 (0.037)	0.041 (0.032)	0.027 (0.033)	0.030 (0.033)
<i>Controls</i>						
Own characteristics	No	Yes	Yes	No	Yes	Yes
Parents' ages	No	No	Yes	No	No	Yes
<i>N</i>	383	383	383	358	358	358
<i>R</i> <sup>2</sup>	0.005	0.066	0.074	0.004	0.022	0.030

*Notes:* OLS regressions with the fraction shared with the Recipient as the dependent variable. Standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table C.14: Regressions of Dictator Game sharing on sum of parental educational attainment, by subjects' gender

	Men			Women		
	(1)	(2)	(3)	(4)	(5)	(6)
Sum of parents' education	-0.004 (0.0022)	0.001 (0.0024)	0.001 (0.0024)	-0.003 (0.0021)	-0.002 (0.0023)	-0.002 (0.0023)
<i>Controls</i>						
Own characteristics	No	Yes	Yes	No	Yes	Yes
Parents' ages	No	No	Yes	No	No	Yes
<i>N</i>	383	383	383	358	358	358
<i>R</i> <sup>2</sup>	0.007	0.066	0.075	0.005	0.021	0.028

*Notes:* OLS regressions with the fraction shared with the Recipient as the dependent variable. Standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table C.15: Regressions of Dictator Game sharing on parental educational attainment, by subjects' gender

	Men			Women		
	(1)	(2)	(3)	(4)	(5)	(6)
Low-educated parents	-0.13* (0.064)	-0.047 (0.065)	-0.031 (0.067)	-0.043 (0.058)	-0.031 (0.060)	-0.036 (0.061)
<i>Controls</i>						
Own characteristics	No	Yes	Yes	No	Yes	Yes
Parents' ages	No	No	Yes	No	No	Yes
<i>N</i>	383	383	383	358	358	358
<i>R</i> <sup>2</sup>	0.011	0.065	0.071	0.002	0.008	0.016

*Notes:* LPM regressions with a dummy that takes value 1 if the subject shared nothing with the Recipient as the dependent variable. Standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table C.16: Regressions of generosity in the Trust Game on parental educational attainment corrected for trend growth

	(1)	(2)	(3)
Low-educated parents	0.046 (0.049)	0.037 (0.050)	0.052 (0.051)
<i>Controls</i>			
Own characteristics	No	Yes	Yes
Parents' ages	No	No	Yes
<i>N</i>	719	719	719

*Notes:* Logit regressions with the dependent variable being a dummy that takes value 1 if the subject chose RIGHT as the Second-Mover. Coefficients are  $dy/dx$  at mean with standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table C.17: Regressions of generosity in the Trust Game on sum of parental educational attainment

	(1)	(2)	(3)
Sum of parents' education	-0.003 (0.003)	-0.001 (0.003)	-0.003 (0.003)
<i>Controls</i>			
Own characteristics	No	Yes	Yes
Parents' ages	No	No	Yes
<i>N</i>	719	719	719

*Notes:* Logit regressions with the dependent variable being a dummy that takes value 1 if the subject chose RIGHT as the Second-Mover. Coefficients are  $dy/dx$  at mean with standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table C.18: LPM regressions of generosity in the Trust Game on parental educational attainment

	(1)	(2)	(3)
Low-educated parents	0.033 (0.042)	0.024 (0.043)	0.040 (0.044)
<i>Controls</i>			
Own characteristics	No	Yes	Yes
Parents' ages	No	No	Yes
<i>N</i>	719	719	719
<i>R</i> <sup>2</sup>	0.001	0.014	0.021

*Notes:* LPM regressions with the dependent variable being a dummy that takes value 1 if the subject chose RIGHT as the Second-Mover in Trust Game. Standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table C.19: Regressions of generosity in the Trust Game on parental educational attainment corrected for trend growth, by subjects' age

	20-30 years			31+ years		
	(1)	(2)	(3)	(4)	(5)	(6)
Low-educated parents	-0.148 (0.085)	-0.114 (0.105)	-0.124 (0.087)	0.068 (0.054)	0.059 (0.055)	0.067 (0.057)
<i>Controls</i>						
Own characteristics	No	Yes	Yes	No	Yes	Yes
Parents' ages	No	No	Yes	No	No	Yes
<i>N</i>	211	211	211	508	508	508

*Notes:* Logit regressions with the dependent variable being a dummy that takes value 1 if the subject chose RIGHT as the Second-Mover in Trust Game. Coefficients are  $dy/dx$  at mean with standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table C.20: Regressions of generosity in the Trust Game on sum of parental educational attainment, by subjects' age

	20-30 years			31+ years		
	(1)	(2)	(3)	(4)	(5)	(6)
Sum of parents' education	0.013*	0.011	0.010	-0.005	-0.005	-0.005
	(0.007)	(0.007)	(0.007)	(0.003)	(0.004)	(0.004)
<i>Controls</i>						
Own characteristics	No	Yes	Yes	No	Yes	Yes
Parents' ages	No	No	Yes	No	No	Yes
<i>N</i>	211	211	211	508	508	508

*Notes:* Logit regressions with the dependent variable being a dummy that takes value 1 if the subject chose RIGHT as the Second-Mover in Trust Game. Coefficients are  $dy/dx$  at mean with standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table C.21: LPM regressions of generosity in the Trust Game on parental educational attainment, by subjects' age

	20-30 years			31+ years		
	(1)	(2)	(3)	(4)	(5)	(6)
Low-educated parents	-0.11	-0.062	-0.023	0.047	0.038	0.046
	(0.11)	(0.11)	(0.11)	(0.047)	(0.048)	(0.048)
<i>Controls</i>						
Own characteristics	No	Yes	Yes	No	Yes	Yes
Parents' ages	No	No	Yes	No	No	Yes
<i>N</i>	211	211	211	508	508	508
<i>R</i> <sup>2</sup>	0.005	0.034	0.071	0.002	0.013	0.016

*Notes:* LPM regressions with the dependent variable being a dummy that takes value 1 if the subject chose RIGHT as the Second-Mover in Trust Game. Standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table C.22: Regressions of generosity in the Trust Game on parental educational attainment, by subjects' age (alternative categorization)

	20-25 years			26+ years		
	(1)	(2)	(3)	(4)	(5)	(6)
Low-educated parents	-0.142 (0.102)	-0.112 (0.118)	-0.098 (0.108)	0.047 (0.046)	0.034 (0.046)	0.044 (0.048)
<i>Controls</i>						
Own characteristics	No	Yes	Yes	No	Yes	Yes
Parents' ages	No	No	Yes	No	No	Yes
<i>N</i>	138	138	138	581	581	581

*Notes:* Logit regressions with the dependent variable being a dummy that takes value 1 if the subject chose RIGHT as the Second-Mover in Trust Game. Coefficients are  $dy/dx$  at mean with standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table C.23: Regressions of generosity in the Trust Game on parental educational attainment corrected for trend growth, by subjects' gender

	Men			Women		
	(1)	(2)	(3)	(4)	(5)	(6)
Low-educated parents	0.136 (0.078)	0.119 (0.081)	0.136 (0.082)	-0.017 (0.059)	-0.030 (0.058)	-0.016 (0.061)
<i>Controls</i>						
Own characteristics	No	Yes	Yes	No	Yes	Yes
Parents' ages	No	No	Yes	No	No	Yes
<i>N</i>	374	374	374	345	345	345

*Notes:* Logit regressions with the dependent variable being a dummy that takes value 1 if the subject chose RIGHT as the Second-Mover in Trust Game. Coefficients are  $dy/dx$  at mean with standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table C.24: Regressions of generosity in the Trust Game on sum of parental educational attainment, by subjects' gender

	Men			Women		
	(1)	(2)	(3)	(4)	(5)	(6)
Sum of parents' education	-0.004 (0.004)	-0.003 (0.005)	-0.004 (0.005)	-0.001 (0.004)	0.000 (0.004)	-0.001 (0.004)
<i>Controls</i>						
Own characteristics	No	Yes	Yes	No	Yes	Yes
Parents' ages	No	No	Yes	No	No	Yes
<i>N</i>	374	374	374	345	345	345

*Notes:* Logit regressions with the dependent variable being a dummy that takes value 1 if the subject chose RIGHT as the Second-Mover in Trust Game. Coefficients are  $dy/dx$  at mean with standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table C.25: LPM regressions of generosity in the Trust Game and parental educational attainment, by subjects' gender

	Men			Women		
	(1)	(2)	(3)	(4)	(5)	(6)
Low-educated parents	0.080 (0.064)	0.062 (0.067)	0.080 (0.068)	0.0059 (0.054)	-0.0072 (0.056)	0.0070 (0.057)
<i>Controls</i>						
Own characteristics	No	Yes	Yes	No	Yes	Yes
Parents' ages	No	No	Yes	No	No	Yes
<i>N</i>	374	374	374	345	345	345
$R^2$	0.004	0.014	0.020	0.000	0.004	0.014

*Notes:* LPM regressions with the dependent variable being a dummy that takes value 1 if the subject chose RIGHT as the Second-Mover in Trust Game. Standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$